

CLAIMS

5           What is claimed is:

1. A remote process or user driven content component creation, delivery, presentation and storage system communicating over TCP/IP, said system comprising:

10                     a. a browser based client module providing a client workspace comprising of a graphical user interface supporting a plurality of moveable frames and layered desktops within a single browser window and component execution and event management services; and

                      b. and a server based module providing dynamic form based content component creation, storage and delivery services to the client workspace.

15           2. The system of Claim 1 wherein a content component creation engine delivers pre-built components and the system exposes a public application programmer's interface that allows creation of components that can be used in creating form content, and wherein components written to interface specifications can be manipulated by the system and the

20                     content messages, preferably wherein a public interface allows submission of form creation specification documents, preferably wherein the interface is a cross-platform highbred of C and C++ and Java, and optionally wherein interface support comprises all programming and scripting languages components capable of having their behavior defined by programming language code and have data access and services provided by

25                     the system.

3. The system of Claim 2 here said content can be specified by a XML document.

4. The system of Claim 3 wherein said delivery services between said client and said server modules is over TCP/IP and comprises directory services, synchronous messaging, data and content transfer and multiple content specific communications and asynchronous messaging.

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5. The system of claim 4 wherein said delivery services and said XML document can modify said system and said system components at run-time.

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6. The system of Claim 4 wherein said XML document can specify a multiplicity of content types, standard and custom properties, standard and custom behavior that can be specified by preferably selected from the group consisting of the list of types, properties events and behavior beginning on page 15 of the specification .

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7. The system of Claim 5 wherein said content types can be added to via an available developer application programming interface.

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8. The system of Claim 4 wherein said XML document can specify for said frames a plurality of display properties preferably one or more of the properties selected from the group consisting of Title Bar, Title Bar Text Alignment, Title Bar Text Font, Title Bar Text Font Size, Title Bar Text Font Style, Title Bar Text Color, Title Bar Height, Title Fore Color, Title Bar Gap Size, Title Bar Inner Border, Title Pattern, Title Back Color, Frame Inner Border, Frame Outer Border, Frame Gap Fill Color, Frame Gap Size, Frame Width, and Frame Height.

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9. The system of Claim 4 wherein said XML document can specify for said frames a plurality of behavioral properties preferably selected from the group consisting of Can Drag/Move, Can Resize, Disable Content Sizing, Bring to Top, Can Be Attached to a Form or Component, Edge Float, Minimizing, and Maximizing.

10. The system of Claim 4 where said XML document can specify for said content, data access, and theme and data storage options.

5 11. The system of Claim 4 wherein said XML document can specify for said desktops a plurality of display, behavioral, dynamic and content specific properties preferably including one or more of the properties selected from the group consisting of Current Visible Desktop Number, Desktop Height, Desktop Width, Visible Desktop Area, Name, Fore Color, Border Color, Pattern, Border Effect, and Desktop Image.

10 12. The system of Claim 1 wherein said desktops' visible desktop area viewable by the browser may be changed.

15 13. The system of Claim 1 additionally comprising virtual desktops inside the browser window with a size alterable by the user.

20 14. The system of Claim 1 wherein said desktops are displayed in said window according to a front and back order wherein a desktop towards the front in the order overlaps any desktops farther back in the order, and wherein said order may be altered.

25 15. The system of Claim 1 wherein said plurality of desktops can be assigned individual themes.

16. The system of Claim 1 wherein said frames can be dragged by the user to appear at a different location within said browser window.

17. The system of Claim 1 wherein said frames can be resized by the user.

18. The system of Claim 1 wherein said frames can be minimized in their current location by the user.

5 19. The system of Claim 1 wherein said frames can be maximized in their current location by the user.

20. The system of Claim 1 wherein said frames can be independently closed by the user.

10 21. The system of Claim 1 where said frames being displayed in said window according to a front and back order wherein a frames towards the front in the order overlaps any frame farther back in the order which are displayed in a same area of said window, wherein said order may be altered by a user of the browser.

15 22. The system of Claim 1 wherein one or more frames can be fixed to a location in a visible space of said browser window during scrolling of the virtual desktop.

20 23. The system of Claim 1 additionally comprising a plurality of layered desktops of the browser window between which the user may set the desktop layer on which the frame resides.

24. The system of Claim 1 wherein said frames' content may be populated asynchronously from server based content queues.

25 25. The system of Claim 1 additionally comprising a set of services allowing said frames to exchange messages on the client.

26. The system of Claim 1 additionally comprising a set of services allowing presentation properties of groups of frames to be accessed as unit.

26. The system of Claim 1 additionally comprising a set of services allowing said frames to exchange messages with other non workspace or external objects

27. The system of Claim 1 additionally comprising a set of services allowing presentation properties of groups of frames to be accessed as unit.

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28. The system of Claim 1 wherein said workspace may be saved to said storage.

29. The system of Claim 1 wherein desktops and said frames and their contents may be restored from a saved record.

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